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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,190	12/28/2001	Sanchaita Datta	3003.2.10B	7737

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EXAMINER

TRAN, PHILIP B

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,190

Applicant(s)

DATTA ET AL.

Examiner

Philip B Tran

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 6-9 and 11-16 are rejected under 35 U.S.C. § 102(e) as being anticipated by Xu, U.S. Patent Application Publication No. US 2002/0038339.

Regarding claim 1, Xu teaches a connection-sensitive domain name resolution device, comprising :

a data component identifying IP addresses for at least two paths to a server which has a domain name (i.e., identifying IP addresses for at least two paths to each server 1775-1777) [see Fig. 17I] ; and

a code component which receives a domain name resolution request specifying the domain name, selects an IP address from the data component based on information about the status of a path to the server, and supplies the selected IP address in response to the domain name resolution request (i.e., selecting an IP address based on information about the status of a path to the server by implementation of load balancer for fail-over management and routing packets to the servers) [see Fig. 17I and Paragraphs 0194-0195 on Page 15].

Regarding claim 2, Xu further teaches the connection-sensitive domain name resolution device of claim 1, wherein IP addresses in the data component identify routers on paths to the server (i.e., IP addresses paths to the server 1775-1777), and the code component avoids selecting the IP address of a router that is on a path to the server but is not available (i.e., a fail-over management device 1797 recognizes when packeting engine 1707 fails and is able to send packets to packeting engine 1708 instead) [see Paragraph 0195 on Page 15].

Regarding claim 3, Xu further teaches the connection-sensitive domain name resolution device of claim 1, wherein IP addresses in the data component identify routers on paths to the server (i.e., IP addresses paths to the server 1775-1777), and the code component selects the IP address in a round-robin manner by selecting the next IP address in a list of IP addresses of routers that are on paths to the server and are available when the selection is made (i.e., round-robin approach can be used by DNS to resolve IP addresses and in combination with a fail-over management device 1797 to select IP address and load balance requests across the packeting engines) [see Paragraphs 0189-0191 and Paragraph 0195 on Page 15].

Regarding claim 4, Xu further teaches the connection-sensitive domain name resolution device of claim 1, wherein the code component selects the IP address of an under-loaded path, thereby tending to balance the loads on the paths to the server (i.e., a fail-over management device 1797 recognizes when packeting engine 1707 fails and

is able to send packets instead to packeting engine 1708 which indicates that balancing the loads on the paths to the server is carried out) [see Fig. 17I and Paragraph 0191 and Paragraph 0195 on Page 15].

Regarding claim 6, Xu further teaches the connection-sensitive domain name resolution device of claim 1, in combination with a router for the server, the router having multiple connections to the Internet (i.e., the Internet is shown in Fig. 23 or even inherently implemented though not shown in some figures) [see Fig. 23].

Regarding claim 7, Xu further the connection-sensitive domain name resolution device of claim 1, in combination with a server-sensitive domain name resolver, wherein the combination performs load-balancing over server paths and also performs load-balancing over multiple servers [see Fig. 17I and Paragraphs 0193-0196].

Claim 8 is rejected under the same rationale set forth above to claim 1.

Claim 9 is rejected under the same rationale set forth above to claim 2.

Regarding claim 11, Xu further teaches the method of claim 8, further comprising the step of pinging a router on a path to the server to determine if the router is a reliable connection component (i.e., polling connection statistics) [see Paragraphs 0216-0218 on Pages 16-17].

Claim 12 is rejected under the same rationale set forth above to claim 4.

Claim 13 is rejected under the same rationale set forth above to claim 1.

Claim 14 is rejected under the same rationale set forth above to claim 11.

Claim 15 is rejected under the same rationale set forth above to claim 3.

Claim 16 is rejected under the same rationale set forth above to claim 4.

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Xu, U.S. Patent Application Publication No. US 2002/0038339.

Regarding claim 5, Xu does not explicitly teach the connection-sensitive domain name resolution device of claim 1, wherein the device is placed between the server and a router for the server. However, this is a matter of engineering choice to implement the

placement of DNS in the network in such an arrangement that DNS is located between the server and router. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to alter the arrangement and locate the DNS elsewhere in the network while the DNS in combination with the fail-over management device still performing selection of IP address and load balance requests across the packeting engines to the servers [see Paragraphs 0189-0191 and Paragraph 0195 on Page 15].

4. Claims 10 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Xu, U.S. Patent Application Publication No. US 2002/0038339 in view of Mogul, U.S. Pat. No. 6,262,987.

Regarding claim 10, Xu does not explicitly teach the method of claim 8, further comprising the step of adjusting the time-to-live to be associated with a DNS record for an IP address in a path to the server. However, updating time-to-live (TTL) associated with the DNS record is well-known in the art as disclosed by Mogul [see Abstract and Col. 1, Line 35 – Col. 2, Line 10 and Col. 4, Lines 19-32 and Col. 6, Lines 10-50]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to set a DNS record time-to-live (TTL) because it would have enabled the prevention of DNS cache miss due to TTL expiration which may result in a time-consuming reload [see Col. 1, Line 35 – Col. 2, Line 10].

Claim 17 is rejected under the same rationale set forth above to claim 10.

Other References Cited

5. The following references cited by the examiner but not relied upon are considered pertinent to applicant's disclosure.

- A) McGarvey, U.S. Pat. No. 5,777,989.
- B) Rune, U.S. Pat. No. 6,304,913.
- C) Dias et al, U.S. Pat. No. 6,119,143.
- D) Colby et al, U.S. Pat. No. 6,006,264.
- E) Skene et al, U.S. Patent Application Publication No. US2001/0049741.


6. A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS ACTION IS SET TO EXPIRE THREE MONTHS, OR THIRTY DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. FAILURE TO RESPOND WITHIN THE PERIOD FOR RESPONSE WILL CAUSE THE APPLICATION TO BECOME ABANDONED (35 U.S.C. § 133). EXTENSIONS OF TIME MAY BE OBTAINED UNDER THE PROVISIONS OF 37 CAR 1.136(A).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tran whose telephone number is (703) 308-8767. The Group fax phone number is (703) 746-7239.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam, can be reached on (703) 308-6662.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

PBT
Philip B. Tran
Art Unit 2155
Aug 12, 2003


HOSAIN T. ALAM
PRIMARY EXAMINER